

Model

Designation	SC21G	220-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	104G8148
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R1234yf
Oil viscosity	22cSt	Displacement	20,95cm ³ / 1,28cu.in
Oil quantity	550cm ³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm ³ / 49,4fl.oz		
Weight	13,6kg / 30lbs		
Motor protection	1# internal		
Winding resistance main	3,5Ω (at 25°C)		
Winding resistance aux	13Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with SC21G

	Conf. 1	Conf. 2
Motor configuration	CSCR	CSCR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1
Voltage range	198-254V	198-253V
Approvals	UL	UL
Starting torque	HST	HST
Note	- / -	

Applications with SC21G

	Conf. 1	Conf. 2
Refrigerant	R1234yf	R1234yf
Application	LBP+MBP+HBP	LBP
System cooling	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

Electrical data - Configurations with SC21G

	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	10μF	10μF
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s/ U(N))	22A	22A
RLA (rated load amps / 1s/ U(N))	3,9A	3,9A
Cut in current (U(N))	22A	22A

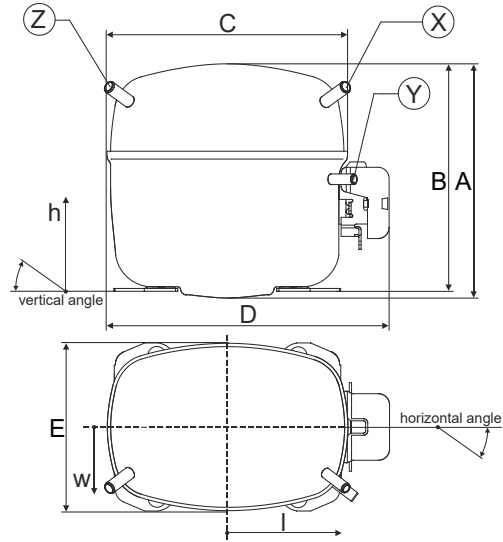
Model

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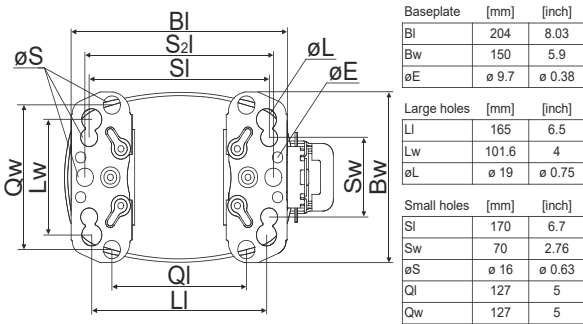
Compressor dimensions

Housing	A Height	219mm / 8,62in
	B Height	213mm / 8,39in
	C Length shell	218mm / 8,58in
	D Length w. cover	255mm / 10,04in
	E Width	151mm / 5,94in

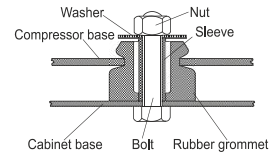
Connectors	Suction	Discharge	Process
	X	Y	Z
Diameter [mm]	øi 10,11-10,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle	±2° 37°	±2° 37°	±2° 143°
Vertical angle	±2° 30°	±2° 0°	±2° 150°
Position l/h/w [mm]	107/193/55	115/110/63	-107/193/55
[in]	4,2/7,6/2,2	4,5/4,3/2,5	-4,2/7,6/2,2
Straight tube l.	[mm]	12	12
	[in]	0,5	0,5



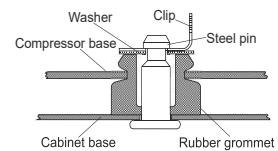
Compressor fixation



Bolt joint



Snap-on



Mounting accessories	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

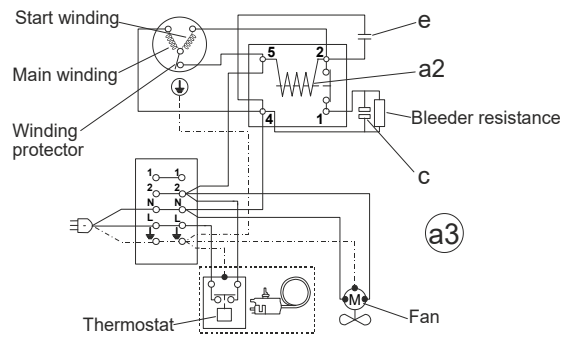
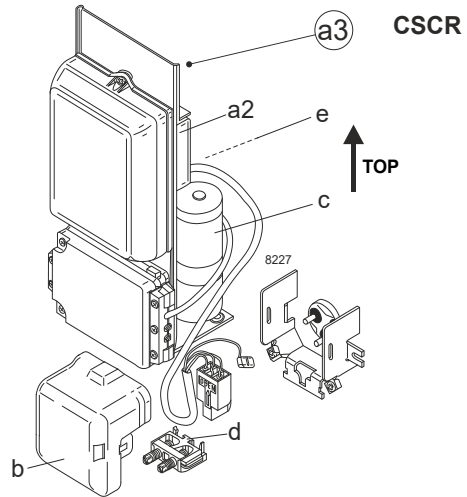
Model

Designation	SC21G	220-240V/50Hz	Conf. 1	Sales code:	104G8148
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Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R1234yf
Application	LBP+MBP+HBP
Voltage range	198-254V
Starting torque	HST
Approvals	UL

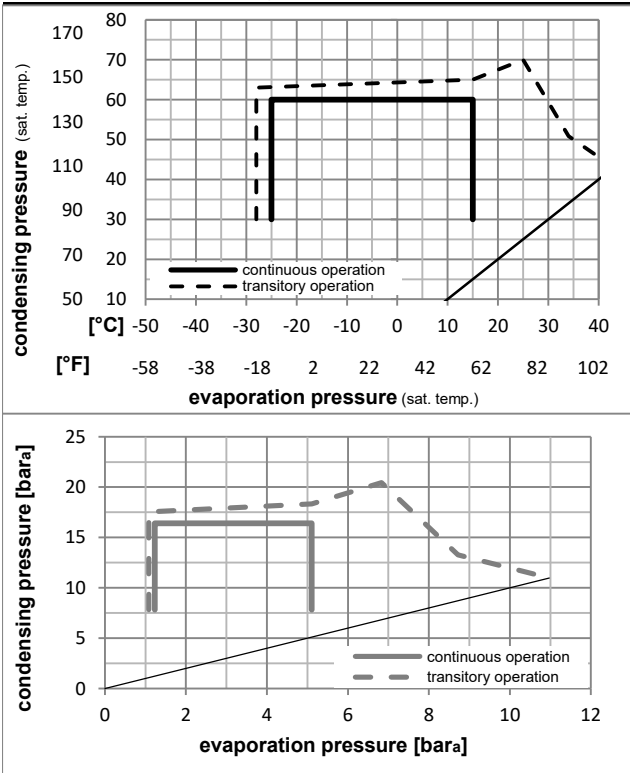
Electrical accessories / wiring diagram



Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

Operation pressure range



Components

a3	SC starter kit (550mm)	117-7039
b	plastic cover	103N2008
d	cord relief	103N1004

Alternative components

a3	SC starter kit (1000mm)	117-7043
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Model

Designation **SC21G** **220-240V/50Hz** Conf. 1 Sales code: **104G8148**

Optimization + standard conditions

R1234yf, 220V/50Hz, CSCR, fan 3m/s, UL

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.				Liquid temp.						Current consumption			Ref. mass flow
		Cooling capacity				COP	EER		P1	I	m				
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	507,0	1732	436,3	1,27	4,34	1,09	398,5	2,35	11,95	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-7	54	35	46	1049,5	3584	903,2	1,68	5,73	1,45	625,0	3,20	28,38	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	7,2	54	35	46	1838,5	6279	1582,2	2,38	8,13	2,05	772,0	3,82	50,68	ASHRAE HBP	
[°F]	45	130	95	115											
[°C]	-35	40	20	40	250,3	855	215,4	0,91	3,12	0,79	274,3	1,99	6,87	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-10	45	20	45	924,0	3155	795,2	1,59	5,42	1,37	581,7	3,02	27,44	EN12900 MBP	
[°F]	14	113	68	113											
[°C]	5	50	20	50	1524,4	5206	1311,9	2,06	7,02	1,77	741,1	3,69	49,58	EN12900 HBP	
[°F]	41	122	68	122											

Performance tables

R1234yf, 220V/50Hz, CSCR, fan 3m/s, UL

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-25	-13	452,8	1546	389,7	1,13	3,86	0,97	401,1	2,35	12,16
cond. pressure	-20	-4	599,3	2047	515,7	1,29	4,41	1,11	463,6	2,57	16,15
pc= 45/113	-10	14	979,2	3344	842,7	1,68	5,75	1,45	581,7	3,02	26,62
return gas temp.	-5	23	1212,8	4142	1043,8	1,91	6,53	1,65	634,2	3,23	33,16
RGT= 32/90	0	32	1475,7	5040	1270,0	2,17	7,41	1,87	680,3	3,43	40,61
liquid temp	5	41	1767,8	6037	1521,4	2,46	8,40	2,12	718,5	3,59	49,02
Tliq= 45/113	15	59	2440,3	8334	2100,1	3,19	10,89	2,74	765,2	3,79	69,03
[°C / °F]	-25	-13	355,0	1212	305,5	0,96	3,26	0,82	371,5	2,26	10,76
cond. pressure	-20	-4	470,1	1605	404,6	1,06	3,62	0,91	443,0	2,50	14,30
pc= 55/131	-10	14	788,2	2692	678,3	1,36	4,63	1,17	581,0	3,02	24,22
return gas temp	-5	23	991,4	3386	853,2	1,54	5,25	1,32	644,6	3,28	30,65
RGT= 32/90	0	32	1224,0	4180	1053,4	1,74	5,95	1,50	702,5	3,52	38,13
liquid temp	5	41	1486,2	5076	1279,1	1,97	6,74	1,70	753,3	3,74	46,70
Tliq= 55/131	15	59	2099,7	7171	1807,0	2,54	8,67	2,18	827,4	4,06	67,48

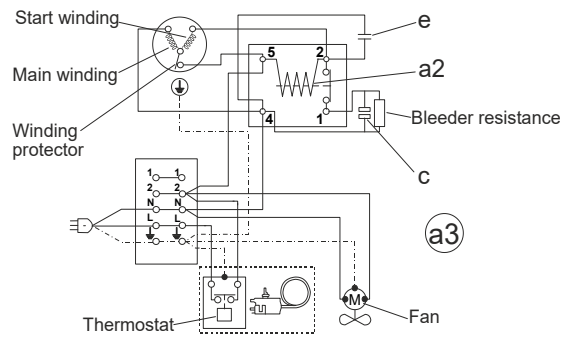
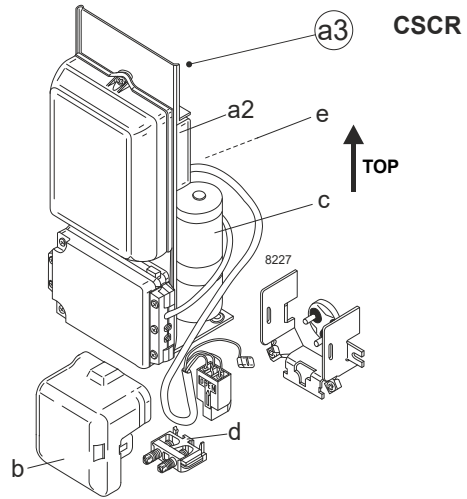
Model

Designation **SC21G** **208-230V/60Hz** Conf. 2 Sales code: **104G8148**

Configuration

Motor configuration CSCR
 Power supply (nominal) 208-230V/60Hz 1~
 Refrigerant R1234yf
 Application LBP
 Voltage range 198-253V
 Starting torque HST
 Approvals UL

Electrical accessories / wiring diagram



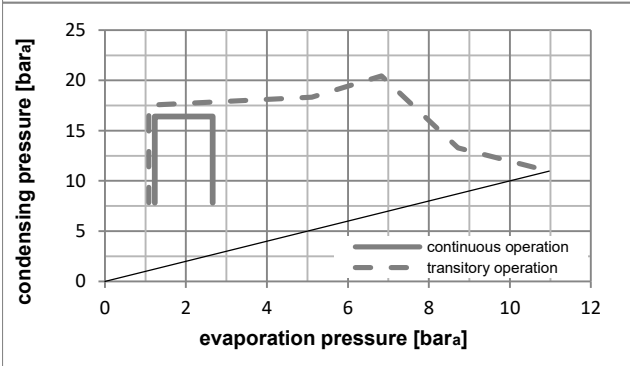
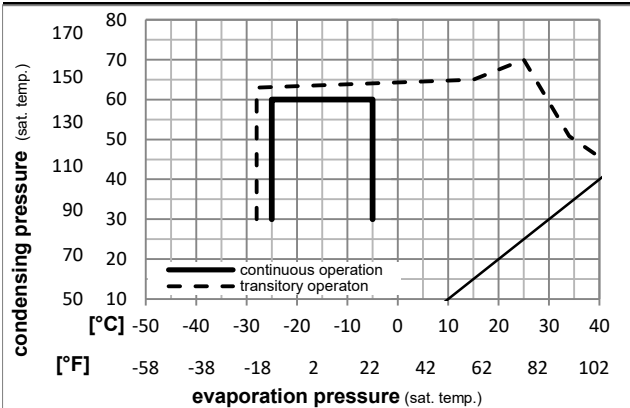
Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

Operation pressure range



Components

- a3 SC starter kit (550mm) 117-7039
- b plastic cover 103N2008
- d cord relief 103N1004

Alternative components

- a3 SC starter kit (1000mm) 117-7043

Model

Designation **SC21G** **208-230V/60Hz** Conf. 2 Sales code: **104G8148**

Optimization + standard conditions

R1234yf, 230V/60Hz, CSCR, fan 3m/s, UL

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	I	m			P1	I	m	
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]							[W]	[A]	[kg/h]			[W]	[A]	[kg/h]	
-23	-10	54	130	32	90	32	90	533,0	1820	458,7	1,11	3,80	0,96	479,0	2,42	12,56				ASHRAE LBP
-7	20	54	130	35	95	46	115	1177,5	4021	1013,4	1,66	5,68	1,43	708,6	3,35	31,84				ASHRAE MBP
7,2	45	54	130	35	95	46	115	2137,8	7301	1839,8	2,34	8,00	2,02	912,6	4,23	58,93				ASHRAE HBP
-35	-31	40	104	20	68	40	104	264,4	903	227,6	0,84	2,85	0,72	316,5	1,86	7,26				EN12900 LBP
-10	14	45	113	20	68	45	113	986,7	3370	849,2	1,57	5,36	1,35	628,8	3,02	29,31				EN12900 MBP
5	41	50	122	20	68	50	122	1720,6	5876	1480,8	1,99	6,80	1,71	863,8	4,01	55,96				EN12900 HBP

Performance tables

R1234yf, 230V/60Hz, CSCR, fan 3m/s, UL

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-25	-13	473,5	1617	407,5	1,08	3,68	0,93	439,4	2,28	12,72
cond. pressure	-23	-10	524,3	1791	451,3	1,14	3,89	0,98	460,2	2,36	14,10
pc= 45/113	-20	-4	632,6	2160	544,4	1,26	4,31	1,09	500,9	2,51	17,05
return gas temp.	-18	0	712,1	2432	612,9	1,35	4,60	1,16	528,4	2,61	19,22
RGT= 32/90	-15	5	822,3	2808	707,7	1,46	4,98	1,26	563,9	2,75	22,25
liquid temp	-10	14	1045,7	3571	900,0	1,66	5,68	1,43	628,8	3,02	28,43
Tliq= 45/113	-5	23	1305,7	4459	1123,7	1,88	6,41	1,61	695,9	3,30	35,69
[°C / °F]	-25	-13	367,6	1256	316,4	0,80	2,75	0,69	456,7	2,34	11,14
cond. pressure	-23	-10	411,7	1406	354,3	0,86	2,93	0,74	479,8	2,43	12,49
pc= 55/131	-20	-4	506,7	1731	436,1	0,97	3,30	0,83	524,7	2,60	15,42
return gas temp	-18	0	577,5	1972	497,0	1,04	3,56	0,90	554,8	2,72	17,60
RGT= 32/90	-15	5	676,6	2311	582,3	1,14	3,89	0,98	593,2	2,87	20,68
liquid temp	-10	14	880,1	3006	757,4	1,33	4,54	1,14	662,6	3,15	27,04
Tliq= 55/131	-5	23	1120,4	3826	964,2	1,53	5,22	1,31	733,3	3,45	34,64